

WHAT IS CLAIMED IS:

1. A recording apparatus comprising:
 - a recording head for ejecting material onto a recording medium;
 - a medium discharging driven roller disposed in a medium transfer path on a recording side of the recording medium; and
 - a recording medium stacker for stacking the recording medium on which recording is performed, said stacker being operably associated with said medium discharging driven roller, and said stacker being operated to change between a first position where said medium discharging driven roller is positioned out of the medium transfer path and a second position where said medium discharging driven roller is positioned within the medium transfer path.
2. A recording apparatus comprising:
 - a recording head for ejecting liquid onto a first and a second recording medium;
 - a medium discharging driven roller disposed in a medium transfer path; and
 - a recording medium stacker operably associated with said medium discharging driven roller, said stacker being operated to change between a first position where recording is performed on the first medium in a non-contact state with said medium discharging driven roller and a second position where recording is performed on the second medium in a contact state with said driven roller.
3. A recording apparatus comprising:

a recording medium feeding mechanism for feeding a recording medium including a hard recording medium and a non-hard recording medium in a recording medium transfer path by one at a time;

a recording head provided at a downstream of said recording medium feeding apparatus for performing recording on the recording medium at a record performing area;

a discharging roller provided in the medium transfer path at a downstream of said recording head, comprising a discharging driven roller provided to a recording side of the recording medium and a discharge driving roller provided to a non-recording side of a recording medium, for discharging the medium on which recording is performed; and

a recording medium stacker having a recording medium stacking surface operated to change between

a first position where said discharging driven roller is separated from the recording medium transfer path, said first position constituting a straight a medium feeding and/or discharging path extending between said recording medium stacking surface and said record performing area, said first position is selected when recording is performed on the hard recording medium, and the hard recording medium being transferred back and forth in said medium feeding and/or discharging path, and

a second position where said discharging driven roller is in contact with said discharge driving roller and the recording medium is discharged and stacked, said second position is selected when recording is performed on the non-hard recording medium fed by said recording medium feeding mechanism.

4. A recording apparatus comprising:

a recording medium feeding mechanism provided at an upstream of a recording medium transfer path for feeding a recording medium, which is stacked and held on a slant, to a downstream by one at a time;

a recording head provided at a downstream of said recording medium feeding apparatus for performing recording on the recording medium;

a paper discharging roller provided at a downstream of said recording head, comprising a paper discharging driven roller provided on a recording side of the recording medium and a paper discharge driving roller provided on non-recording side of the recording medium, for discharging the recording medium on which recording is performed;

a paper discharging frame for holding said paper discharging driven roller, said frame being operated to change between a contact state where said paper discharging driven roller is in contact with said paper discharge driving roller and a separation state where said paper discharging driven roller is separated from said paper discharge driving roller;

a side frame provided at both sides of said paper discharging frame;

a recording medium stacker operated to change between a first position where a hard recording medium is fed from a recording medium stacking surface, which is substantially horizontal, straight to said recording head and discharged in the same direction, a feeding and/or discharging path being straight, and a second position in which recording is performed on a recording medium, which is fed by said recording medium feeding apparatus, said medium which has been discharged being stacked;

a link mechanism for changing a position of said paper discharging frame between said contact and separation states by changing a position of said recording medium stacker, said link mechanism allowing said paper discharging frame to be in said contact state by setting said recording medium stacker to be in said second position, and allowing said paper discharging frame to be in said separation state by setting said recording medium stacker to be in said first position.

5. A recording apparatus as claimed in claim 4, wherein a position of said paper discharging frame is changed between said contact and separation states, while a posture of said paper discharging frame in said contact state is maintained.

6. A recording apparatus as claimed in claim 4, wherein said paper discharging frame is urged toward said contact state by an urging means.

7. A recording apparatus as claimed in claim 4, wherein said link mechanism comprising:

a release lever sub engaged with said recording medium stacker to be capable of moving up and down against said apparatus, following a position change of said recording medium stacker;

a release lever provided at a rotating shaft to be capable of rotate around said rotating shaft by sliding a sliding groove formed at said release lever sub; and

a link frame engaged with said release lever via said rotating shaft to be incapable of rotating against said release lever, said link frame rotatably engaging with said paper discharging frame.

8. A recording apparatus as claimed in claim 7, wherein a cross-section of said rotating shaft is a rectangle shape.

9. A recording apparatus as claimed in claim 4, wherein an engaging projection is formed at said side frame, for determining a position of said paper discharging frame to be in contact state by engaging with said paper discharging frame.

10. A recording apparatus as claimed in claim 4, wherein a guide slant is formed at said side frame for guiding a position change of said paper discharging frame between said contact and separation states, while maintaining a posture of said paper discharging frame in said contact state, in case said separation state is slanting upwards to said contact state.

11. A recording apparatus as claimed in claim 4, wherein a guide slant is formed at said side frame for guiding a position change of said paper discharging frame in order that an upstream of said paper discharging frame is separated more upwards than a downstream of said paper discharging frame, in case said separation state is slanting upwards to said contact state.

12. A recording apparatus comprising:

a recording medium feeding mechanism for feeding a recording medium to a downstream by one at a time;

a recording head provided at a downstream of said recording medium feeding apparatus for performing recording on a recording medium;

a paper discharging frame provided at a downstream of said recording medium feeding apparatus, said paper discharging frame being operated to change between an approach state positioned

right above a recording medium transfer path and a separation state positioned more upwards than said approach state;

a paper discharging driven roller installed in said paper discharging frame, projecting downwards;

a paper discharge driving roller provided to a bottom of said paper discharging frame independently for discharging a material on which recording is performed by rotating;

a side frame provided at both sides of said paper discharging frame;

a recording medium stacker capable of being changed to a first position in which a hard recording medium is fed from a recording medium stacking surface, which is substantially horizontal, straight to said recording head and discharged in the same direction, a feeding and/or discharging path being straight, and a second position, lower than said first position, in which recording is performed on a recording medium, which can be fed by said recording medium feeding apparatus, said material which has been discharged being stacked; and

a link mechanism for changing a position of said paper discharging frame between said approach and separation states by changing a position of said recording medium stacker, said link mechanism allowing said paper discharging driven roller to approach said recording medium transfer path via said paper discharging frame by setting said recording medium stacker to be in said second position, and allowing said paper discharging driven roller to be separated from said recording medium transfer path via said paper discharging frame by setting said recording medium stacker to be in said first position.

13. A recording apparatus as claimed in claim 3, further comprising a platen gap position change link mechanism for

adjusting a distance between said recording head and a platen, following a position of said recording medium stacker, wherein said platen is provided opposite to said recording head for supporting a recording medium to a non-recording side of said material.

14. A recording apparatus as claimed in claim 3, further comprising a transfer driven roller position change link mechanism for allowing a transfer driven roller to be in contact with a transfer driving roller in case said recording medium stacker is in said second position, and allowing said transfer driven roller to be separated from said transfer driving roller in case said recording medium stacker is in said first position, wherein said transfer driven roller is provided to a recording side of a recording medium, and said transfer driving roller is provided to a non-recording side of a recording medium, near an upstream of said recording head.

15. A liquid ejection apparatus comprising:

a material feeding apparatus for feeding a medium to be liquid-ejected by one at a time;

a liquid ejection head provided at a downstream of said material feeding apparatus for applying a liquid to a medium to be liquid-ejected;

a discharging roller provided at a downstream of said liquid ejection head, comprising a discharging driven roller provided to a liquid applying side of a medium to be liquid-ejected and a discharge driving roller provided to a liquid non-applying side of a medium to be liquid-ejected, for discharging a material to which a liquid has been applied; and

a material stacker operated to change between

a first position where said discharging driven roller is in contact with said discharge driving roller, said first position being selected in case jetting is performed on a hard medium to be liquid-ejected, said hard medium to be liquid-ejected being transferred back and forth between a material stacking surface and a ejection performing region while a feeding and/or discharging path is straight, and

a second position where said discharging driven roller is separated from a material medium transfer path, said second position being selected in case jetting is performed on a medium to be liquid-ejected, which can be fed by said recording medium feeding apparatus, said material which has been discharged being stacked.